

## **Abstract**

### **Title:**

The use of the new technology when creating didactic aids for blinds and purblinds

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### **Objectives:**

The aim of the study is to verify perceptibility of tactile 3D model by visually impaired and verify usefulness in swimming lessons for visually impaired

### **Methods:**

Perceptibility assessment of 3D models based on the personal history and test of basic knowledge of human anatomical topography and gymnastic terminology using special 3D models and painterly human model for the visually impaired probands.

### **Results:**

Based on the test results and comparison of results between the different categories, I found that the selected size and parameters of special 3D models is sufficient, and that visually impaired people to these haptic devices respond very well. According to the results I can say that skills required for the needs of further research are sufficient.

### **Keywords:**

Swimming lessons, visually impaired, swimming equipment, 3D printer, 3D model